
प्लेटफार्म ट्रकों — विशिष्टि
(तीसरा पुनरीक्षण)

Platform Trucks — Specification
(Third Revision)

ICS 53.060

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Price Group 5

FOREWORD

This Indian Standard (Third Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Earth Moving Equipment and Material Handling Sectional Committee had been approved by the Mechanical Engineering Division Council.

This standard was originally issued in 1976 and subsequently revised in 1983 and 1988. The present revision has been taken up with a view to incorporating the modifications found necessary as a result of experience gained in the use of this standard. Also, in this revision, the standard has been brought into latest style and format of Indian Standards, and references to Indian Standards, wherever applicable have been updated. BIS certification marking clause has been modified to align with the revised *Bureau of Indian Standards Act*, 2016.

The major changes in this revision are as follows:

- a) A reference clause has been added mentioning the latest version of the referred standards; and
- b) A clause **13** regarding BIS certification marking has been added.

This standard is expected to provide a uniform method of specifying dimensional and other technical requirements for hydraulic excavator with hoe attachment by the manufacturer. It is felt that a uniform method of presenting the data may greatly facilitate the user to select a suitable machine for the job.

The composition of the committee responsible for the formulation of this standard is listed in Annex A.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard
PLATFORM TRUCKS — SPECIFICATION
(Third Revision)

1 SCOPE

This standard covers the principal dimensions and requirements of platform trucks used for transportation of goods.

2 REFERENCES

The standards listed below contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed below:

<i>IS No.</i>	<i>Title</i>
IS 5 : 2007	Colours for ready mixed paints and enamels (<i>sixth revision</i>)
IS 1239 (Part 1) : 2004	Steel tubes, tubulars and other wrought steel fittings — Specification: Part 1 Steel tubes (<i>sixth revision</i>)

3 TERMINOLOGY

For the purpose of this standard, the following definition shall apply.

3.1 Platform Trunk — Platform truck is a load supporting truck consisting of platform made out of steel or wood, with wheels or castors which can be moved manually.

4 TYPES

4.1 Tilt Type

These trucks have the wheels or castors placed or mounted so that there shall be a tilting or balancing action around main or centre wheels (located at the longitudinal centre line) before either of the end wheels or castors come into contact with the floor. Such end wheels shall be of sliding type on axles. Castors, where used, shall be of swivel type and there shall be one castor at each end.

4.2 Non-Tilt Type

These trucks have two swivel castors at the push handle end and two fixed castors at the other end, or two wheels mounted on axle at one end and two wheels made steerable by the turntable arrangement at the pull type handle end. All the wheels or castors shall be so mounted that the load will normally be distributed between all four wheels.

5 MATERIAL

Deck shall be made of all wood or structural steel. Frame shall be made of structural steel. Other tubular parts shall be made of mild steel tubes conforming to IS 1239 (Part 1). Decking, if made of wood, shall be of country teak wood, 20 mm nominal finished thickness.

6 CONSTRUCTION AND SHAPE

The construction and shape of some of the types of platform trucks may be as shown in Fig. 1 to Fig. 4.

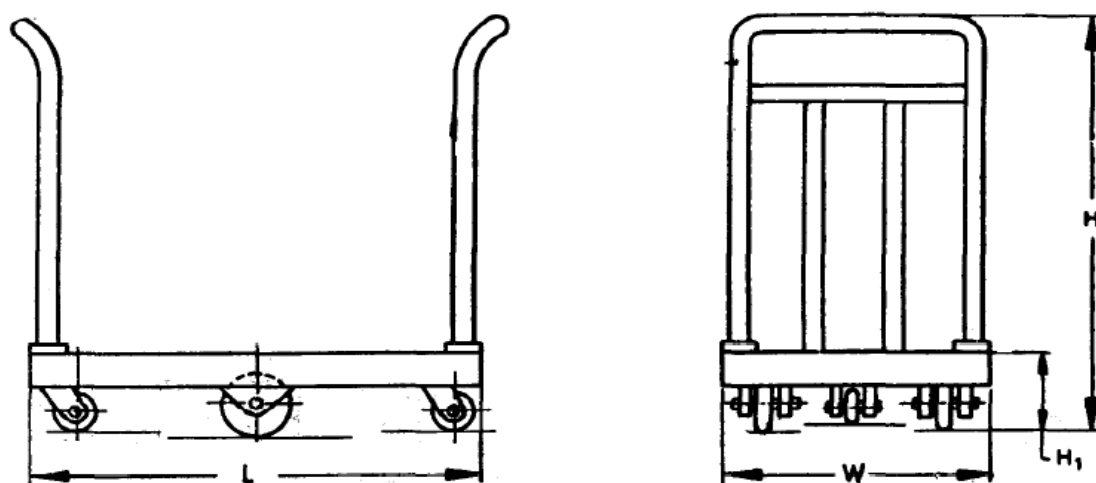


FIG. 1 FLAT DECK TRUCK DOUBLE END (LIGHT DUTY)

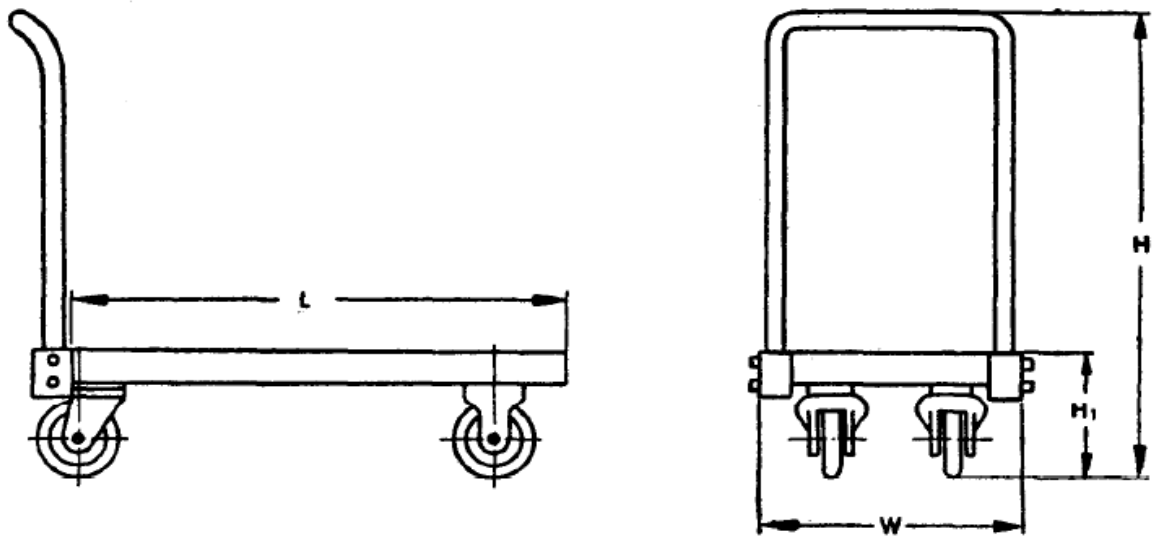


FIG. 2 FLAT DECK TRUCK SINGLE END (MEDIUM DUTY)

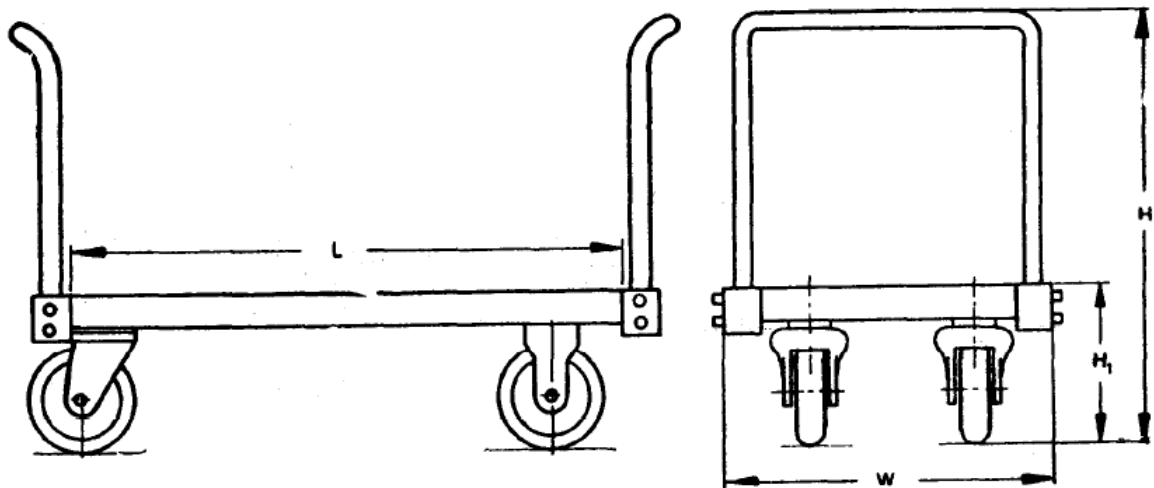


FIG. 3 FLAT DECK TRUCK DOUBLE END

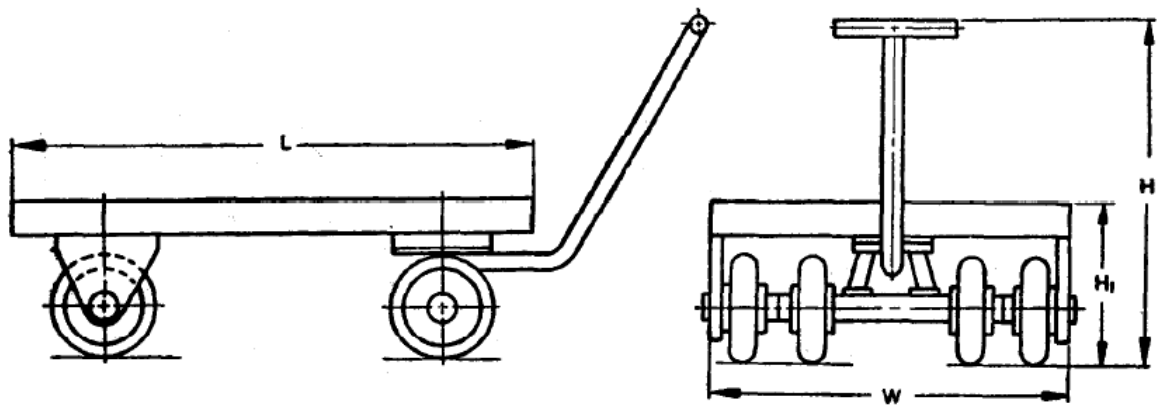


FIG. 4 FLAT DECK TRUCK STEERABLE BY
TURNABLE ARRANGEMENT (HEAVY DUTY)

7 PUSH HANDLE, END RACKS, STAKES AND SUPERSTRUCTURE

Push handles, end racks, stakes and superstructure may be fixed or removable and left to the discretion of the manufacturer or agreement between the

manufacturer and the purchaser to meet problems of holding load on truck.

8 DIMENSIONS AND CAPACITY

The dimensions and capacity of the platform trucks shall be as shown in Table 1.

Table 1 Dimensions and Capacity
(Clause 8)

Sl No.	Ref to Fig.	Duty	Load Carrying Capacity	Type	Platform Size			Overall Height
					L mm	W mm	H_i mm	H mm
(1)	(2)	(3)	kN (4)	(5)	(6)	(7)	(8)	(9)
i)	1	Light	4	Tilt	1 000	600	210	970
ii)			5		1 200	700		
iii)		Medium	10		1 600	800	260	1 020
iv)			15		2 000	900	310	1 070
v)	2 and 3	Medium	10	Non-tilt	1 200	600	350	970
vi)					1 500	750		
vii)	4	Heavy	20		1 500	900	420	710
viii)					1 800	900		

9 TOLERANCES

Tolerances on platform size and overall height shall be within ± 5 mm.

10 WORKMANSHIP AND FINISH

10.1 The platform truck shall be free from warp in structural frame work, blow holes and other defects in casting.

10.2 The painting shall conform to IS 5.

10.3 The painted surface shall be free from wrinkles, irregular painting, dripping, scratches and irregularities in colouring.

11 PERFORMANCE

11.1 When the platform truck is traversed over a smooth road loaded with 120 percent of permissible carrying load, the truck wheels shall turn smoothly and swivel castor arrangements shall function satisfactorily.

11.2 The platform truck shall be tested by applying the distributed load as given in Table 2 by leaving it for 10 minutes in this position. After completion of test, there shall be no permanent set or distortion in the structure or any member of the structure of the truck.

Table 2 Test Loads
(Clause 11.2)

Sl No.	Carrying Load Capacity	Distributed Load for Testing
	kN	kN
(1)	(2)	(3)
i)	Up to 5	Carrying load $\times 2$
ii)	Over 5	Carrying load $\times 1.5$

11.3 End racks and push handles shall withstand a minimum horizontal force equal to 230 N plus 2 percent of rated capacity, without breaking or permanent bending.

12 DESIGNATION

The platform truck shall be designated by its type, load carrying capacity and the number of this standard.

Example:

A non-tilt type platform truck with load carrying capacity of 10 kN shall be designated as:

NT 10 IS 8049

13 MARKING

13.1 The platform truck shall be marked with the following information in visible position:

- a) Designation;
- b) Manufacturing number;
- c) Date of manufacturing; and
- d) Name of the manufacturer or trade-mark.

13.2 BIS Certification Marking

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations framed thereunder, and the products may be marked with the Standard Mark.

ANNEX A
(Foreword)

COMMITTEE COMPOSITION

Earth Moving Equipment and Material Handling Sectional Committee, MED 07

<i>Organization</i>	<i>Representative(s)</i>
BEML Limited, Bengaluru	SHRI V. SEKAR (Chairperson)
Airports Authority of India, New Delhi	SHRI K. S. KUNWAR SHRI JASPAL SINGH (<i>Alternate</i>)
Automotive Research Association of India, Pune	SHRI A. AKBAR BADUSHA
BEML Limited, Bengaluru	SHRI HEMANT KUMAR (<i>Alternate</i>)
Bharat Cooking Coal Limited, Dhanbad	SHRI ARUN NAND SAHAY SHRI CHANDRA SHEKHAR S. I. (<i>Alternate</i>)
Bharat Heavy Electrical Limited, New Delhi	SHRI G. BHAGCHANDANI SHRI S. K. BHAUMIK (<i>Alternate</i>)
Caterpillar India Private Limited, Chennai	SHRI K. REJI JOSE SHRI V. BHASKARAN (<i>Alternate</i>)
Cement Corporation of India Limited, New Delhi	SHRI A. K. SRIVASTAVA SHRI ANURAG KUMAR SAINI (<i>Alternate</i>)
Central Mine Planning and Design Institute Limited, Ranchi	SHRI PARAG MAJUMDAR SHRI PRAVEEN K. SINHA (<i>Alternate</i>)
Directorate General Factory Advice Service and Labour Institutes, Mumbai	SHRI SUMIT ROY
Directorate General of Mines Safety, Dhanbad	SHRI D. B. NAYAK SHRI VIJAY YADAORAO BARAPATRE (<i>Alternate</i>)
Directorate General of Quality Assurance, Ministry of Defense, New Delhi	LT COL SIDHARTH KHATTRI SHRI RAGHUBIR SINGH (<i>Alternate</i>)
Engineers India Limited, New Delhi	SHRI K. C. PAIKAR SHRI R. R. SHRIVASTAVA (<i>Alternate</i>)
Epiroc Mining India Limited, Nashik	SHRI PRAKASH GORE
Escorts Construction Equipment Limited, Faridabad	SHRI FAIZ AHMAD MS RUPALI SHARMA (<i>Alternate</i>)
Fact Engineering and Design Organization, New Delhi	SHRI R. K. PALLAI SHRI JUBY CHANDY (<i>Alternate</i>)
Heavy Engineering Corporation Limited, Ranchi	SHRI ARAVIND DOSS SHRI AMIT PAL (<i>Alternate I</i>) SHRI VIJAY KUMAR (<i>Alternate II</i>)
Indian Construction Equipment Manufacturers Association, New Delhi	SHRI K. V. KRISHNAMURTHY
Indian Institute of Technology (ISM), Dhanbad	PROF L. A. KUMARASWAMIDHAS

<i>Organization</i>	<i>Representative(s)</i>
JCB India Limited, New Delhi	SHRI SAURABH DALELA SHRI VIVEK RAWAT (<i>Alternate</i>)
John Deere India Private Limited, Mumbai	SHRI KARTHIK KALIAPPAN SHRI RAJ ANAND (<i>Alternate</i>)
Komatsu India Private Limited, Bengaluru	SHRI M. RAJENDRAN SHRI VIKRANT SHARMA (<i>Alternate</i>)
L & T Komatsu Limited, Bengaluru	SHRI G. S. NARAYANA SHRI K. KESHAHA (<i>Alternate</i>)
Mahindra Construction Equipment, Chakan	SHRI GOPLAKRISHNA RAJENDRA
Manitou India Limited, Greater Noida	SHRI ATUL K. SINGHAL
McNally Bharat Engineering Company Limited, Kolkata	SHRI ASHOK KUMAR BOSE SHRI SANDIPAN DAW (<i>Alternate</i>)
Ministry of Heavy Industries and Public Enterprises, Department of Heavy Industry, New Delhi	SHRI SUSHIL LAKRA
Ministry of Shipping, New Delhi	SHRI ANIL PRUTHI SHRI RAMJI SINGH (<i>Alternate</i>)
Mumbai Port Trust, Mumbai	SHRI DILIPVISHWANATHAN SHRI PANDIAN SEKAR (<i>Alternate</i>)
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Member Secretary
MS KHASHBOO KUMARI
SCIENTIST 'D'/JOINT DIRECTOR
(MECHANICAL ENGINEERING), BIS

Bureau of Indian Standards

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Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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